PEUGEOT

T . E . P . 92

by ACTIA

PEUGEOT
ON-BOARD TESTER

T . E . P . 92

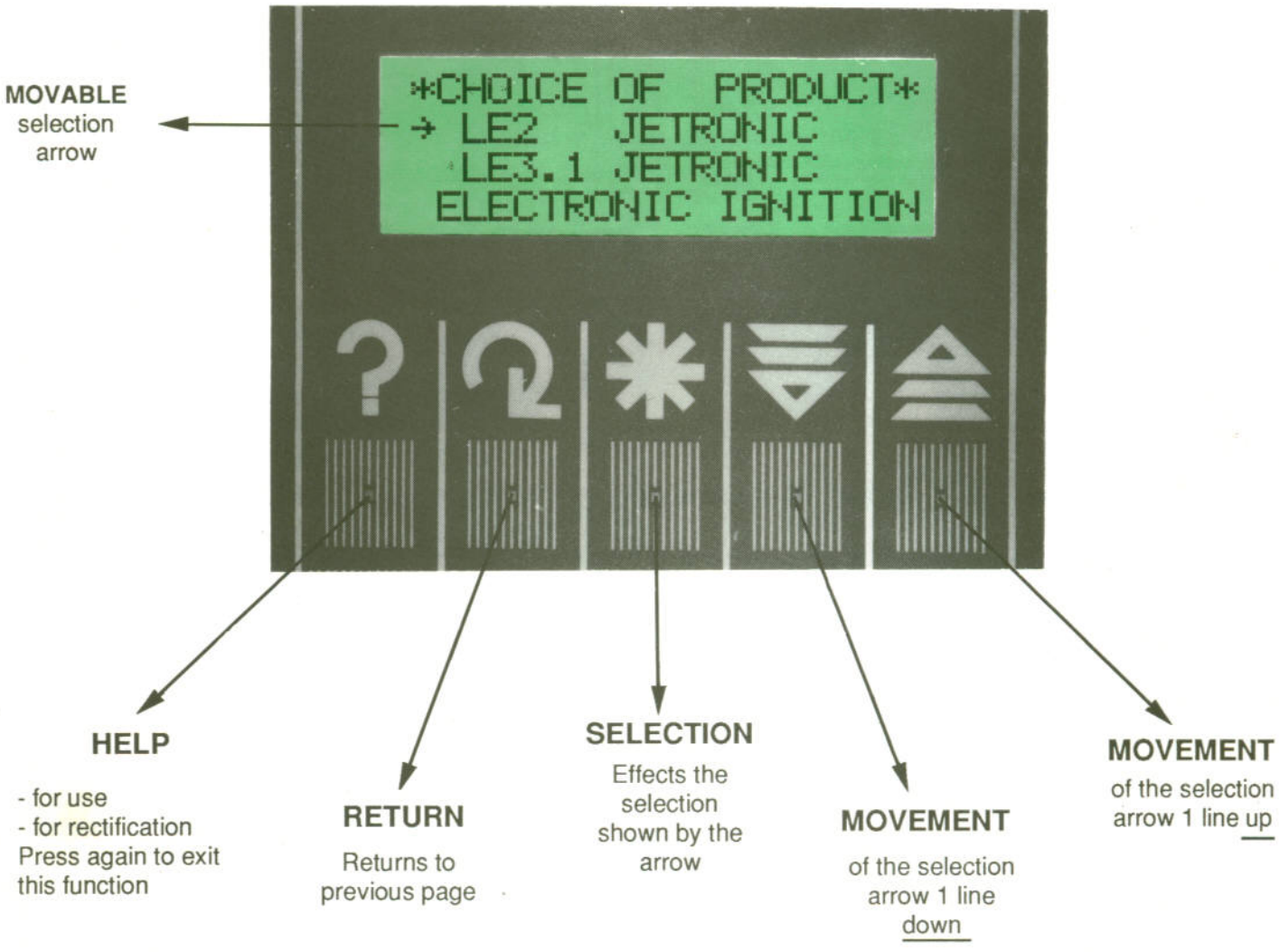
USER

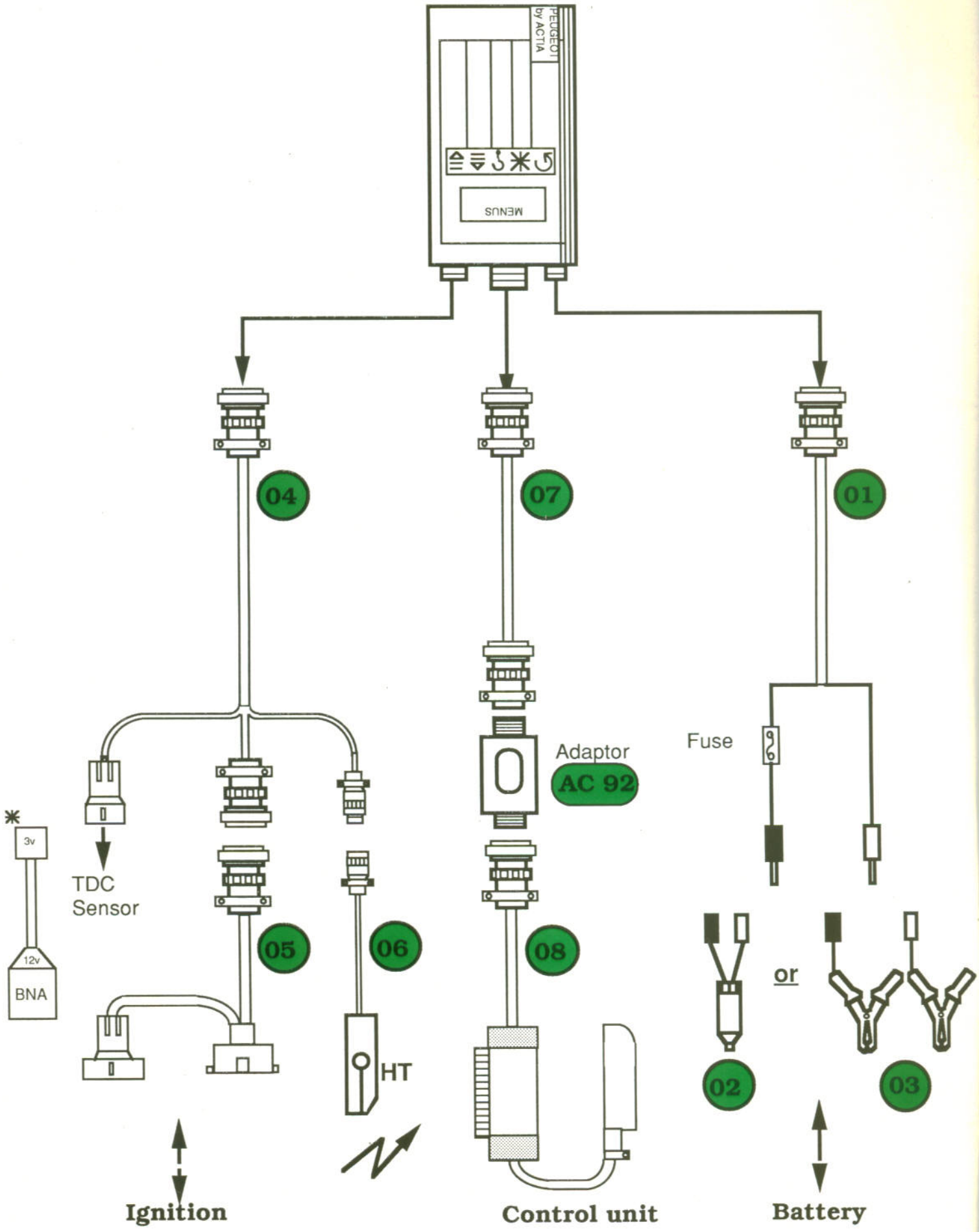
MANUAL

JULY 1989 EDITION

GRANDE BRETAGNE

- Your TEP 92 on-board tester makes it possible to test the electronic systems installed in PEUGEOT vehicles (Ignition, injection control units, etc...).
- It allows instantaneous checking of all the electrical signals between an electronic control unit and the harnesses to which it is connected.
- It can be used on the vehicle, it is self contained and can thus perform tests during driving and detect and record tempory faults on road test.
- It also identifies the root cause of a chain of faults recorded simultaneously on the vehicle.
- Your tester holds the technical data necessary for tests on various products in an interchangeable cassette.
- A keyboard and display integral with the unit allow selection and plain language reading of the results of tests in actual units.




PEUGEOT by ACTIA
MENUS
04
07
01
Adaptor
AC 92
Fuse
3v
12v
BNA
TDC
Sensor
05
06
08
HT
or
02
03
Ignition
Control unit
Battery

Your TEP 92 on-board tester is connected by means of a harness to the control unit, the battery, the ignition coil HT output and to the TDC sensor.

01 Battery extension lead

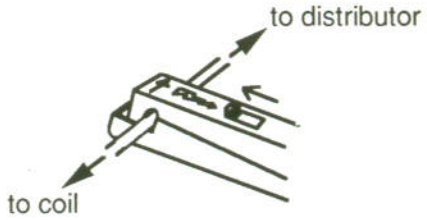
This cable must be connected to the battery. Either a cigar lighter type socket 02 or two crocodile type clips 03 can be connected to the end.

04 Ignition extension lead

It can be connected to :
- The vehicle TDC sensor socket.
  Note : if a BNA ✱ diagnostic socket is fitted to the vehicle, use a BNA adaptor.
- A 7- or 3- way ignition by-pass 05 between the ignition module and the vehicle harness.
- The High Tension clamp.

06 High Tension clamp

This clamp must always be connected to the coil HT lead and NOT to No. 1 cylinder. It must be in the "large spark" position and clamped in the direction shown by the arrow.



07 Control unit extension lead

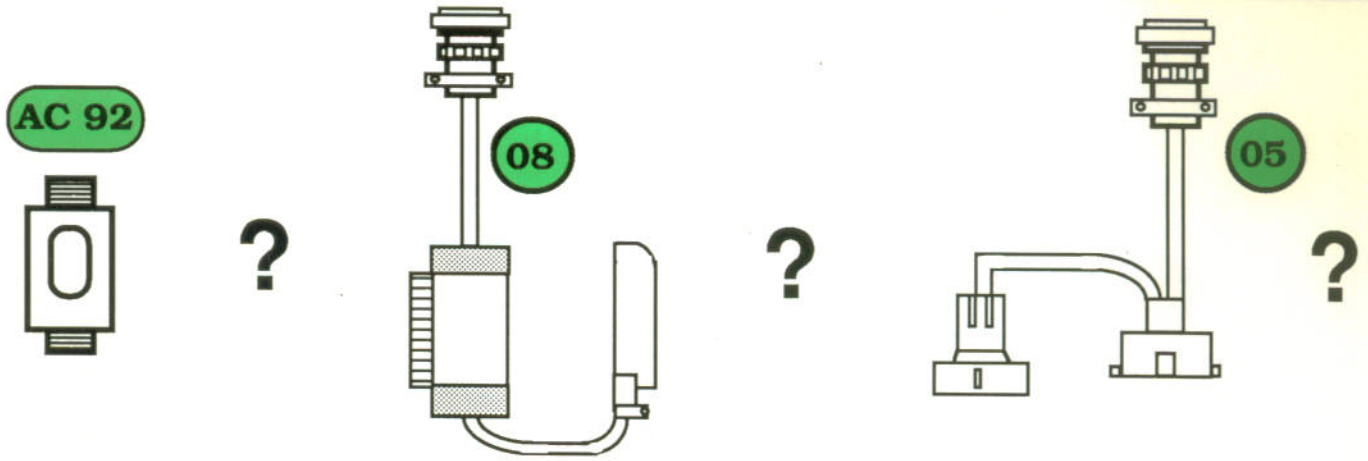
This is a single lead for all systems to be tested. It connects your tester to the connection adaptor AC 92.

08 Control unit by-pass

Depending on the control unit installed in the vehicle and the number of pins in its connector, the suitable type of by-pass must be selected. It is connected between the vehicle harness and the control unit.

AC 92 Connection adaptor

Each adaptor is marked and is appropriate to one type of control unit.
See the table on page 17.



CORRECT OPERATION

```
-  AUTOMOBILE  -
-  DIAGNOSIS   -
   ACTIA France
Version : P1.01.A/90
```

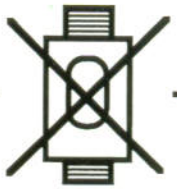
FAULTY OPERATION

SELF TEST

```
*CHOICE OF  PRODUCT*
→ LE2   JETRONIC
  LE3.1 JETRONIC
 ELECTRONIC IGNITION
```

```
-  AUTOMOBILE  -
-  DIAGNOSIS   -
 SYSTEM ERROR 018
Version : P1.01.A/90
```

(Send the tester to the Service Department)

if  then

```
*** LE2 JETRONIC ***
→ 3 - WAY IGNITION
  7 - WAY IGNITION
```

```
*** LE2 JETRONIC ***
        Use
  cable  adaptator
    P25.LE/U.2
```

(Check your type of adaptor)

```
 NUMBER OF CYLINDERS
→3 Cylinders
 4 Cylinders
 5 Cylinders
```

```
*** LE2 JETRONIC ***
→ Wiring test
  Engine start test
  Road test
```

CHOOSE

1

The adaptor suited to the type of control unit fitted to the vehicle.

The appropriately coloured control unit by-pass 08

The by-pass 05 suitable for the ignition module (3- or 7- way).

CONNECT

2

Your TEP 92 is connected with the harnesses thus determined.

The High Tension clamp must always be connected to the coil HT lead.

The adaptor AC 92 is connected between the extension lead and the control unit by-pass.

On switching on, the tester performs a check of correct operation (self test). If the tester is faulty, a system error is displayed.

SELECT

3

The product or function is selected by moving the selection arrow down or up

Selection is then effected by pressing the selection button ✳

Selection of the type of product to be tested

The product selection is made according to the type of system fitted to the vehicle. As soon as you have selected, the tester will verify if your choice of adaptor is correct. If it is incorrect, it will indicate the one to be used.

Selection of engine data

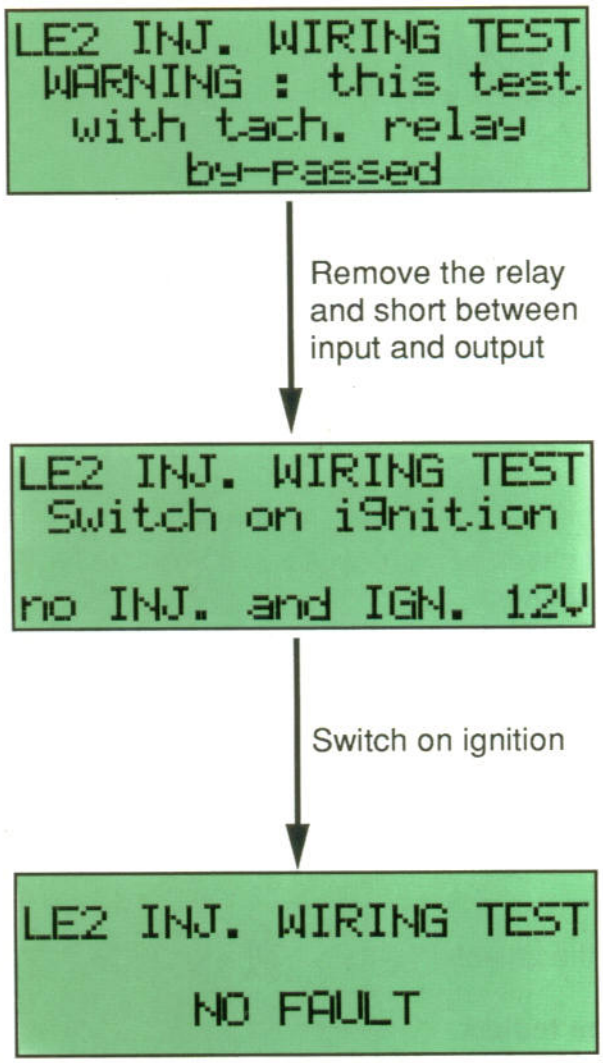
For some types of injection only, you will be asked to also select some additional items of engine data.

Selection of type of test

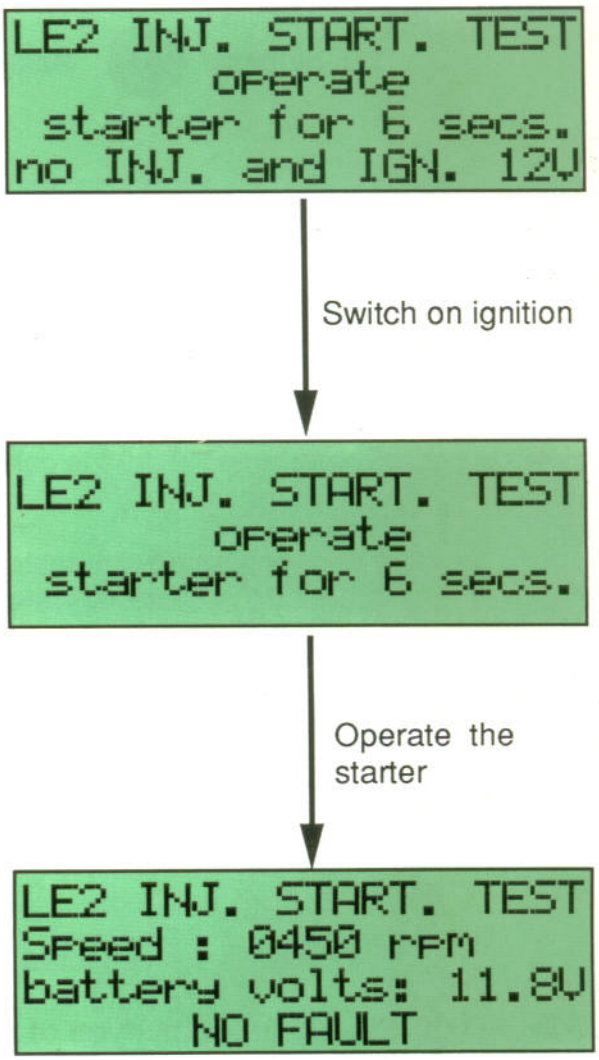
See explanations on the following pages.

EXAMPLES

WIRING TEST



TEST ON STARTING



The test of your vehicle is made by selection from the lists which are displayed on the screen in the form of pages.

FIRST PAGE : Selection of product to be tested

This selection is made from a group of products offered.
Example :

→ **LE2 INJECTION**
LE31 INJECTION
ELECTRONIC IGNITION
MOTRONIC ML4.1
FENIX 3B
FENIX 4

SECOND PAGE : Selection of type of test

→ **Wiring test**
Test on starting
Road test
Parameter measurements
Autodiagnosis

Use of the help button [?] on each fault encountered during these tests, gives guidance on rectification.

Except for parameter measurements, where it is necessary for advance measurements, the TDC sensor need not be connected for these tests.

■ **Wiring test :**

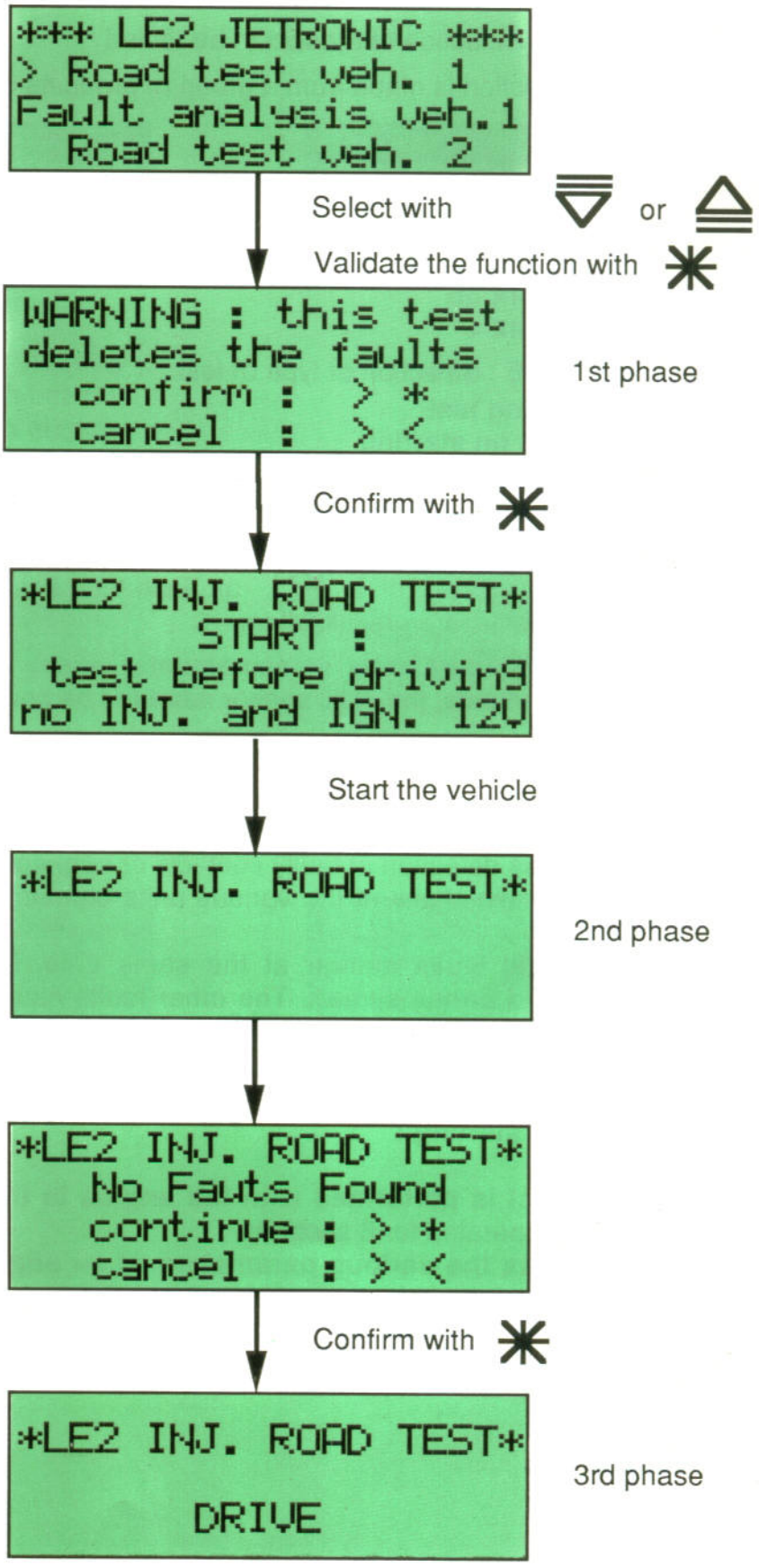
This test is performed with ignition on but engine not running.
It enables detection of faulty contacts or connection errors in wiring.
It is a static check of the various units connected to the injection and their wiring.
If several faults appear at the same time, only the first fault found is displayed on the screen. The other faults can, however, be displayed by progressively pressing the ✳ button.
As soon as one fault is rectified, the next appears.

■ **Test on starting :**

This test is performed with the engine in the starting phase, with the starter operated for 6 seconds.
It checks the various parameters of an engine which will not start. A wiring test should be performed beforehand.
Faults are displayed at the end of the test.

EXAMPLE

ROAD TEST



Road test :

Two possibilities are accessible in this test :
- Running the vehicle.
- Analysis of faults.

Running the vehicle :

The test is made with the engine running.
It is performed in 3 phases :
1) Previously recorded faults are cleared.
2) A complete test of the system before running, with display of any faults.
3) Authorisation to start road test by pressing the  button (if there were no faults in the 2nd phase).

The tester continuously checks the various components of the system to wich it is connected and records permanent or temporary faults which appear.
It is possible to select two independent road test (vehicle 1 and vehicle 2).
If the tester detects a fault, it is displayed on the screen at once. You should then press the  button and select analysis of faults of the vehicle concerned.
These faults are recorded in the tester and held in memory even if the tester is disconnected or the ignition is switched off.

Analysis of faults :
This selection displays the types of faults recorded on the road test.

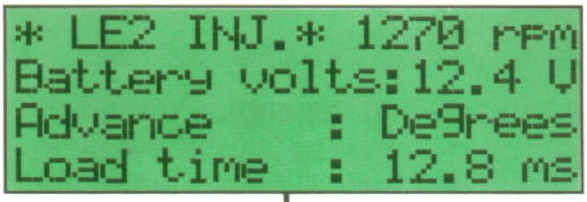
Warning !

- Any fault which causes the engine to stop, similar to switching off or stalling, cannot be detected in this test. You should carry out a test on starting to detect the fault if the vehicle will not re-start.

- When the road test is finished, the tester stops checking the system and does not record any more faults.

EXAMPLE

MEASUREMENT OF PARAMETERS



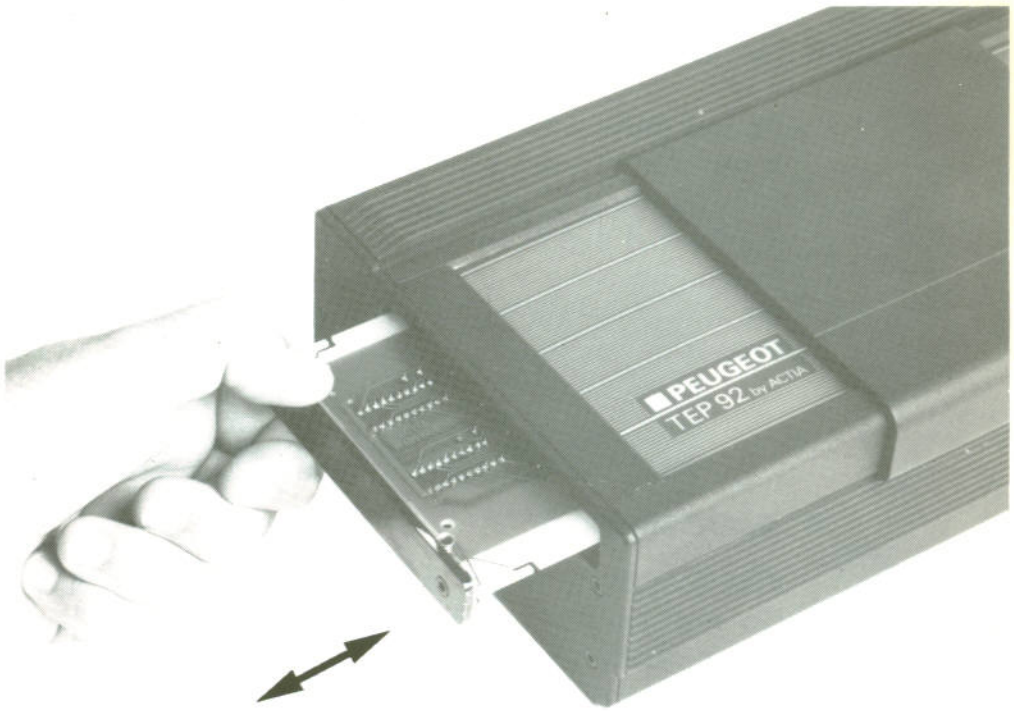
Continue reading with or

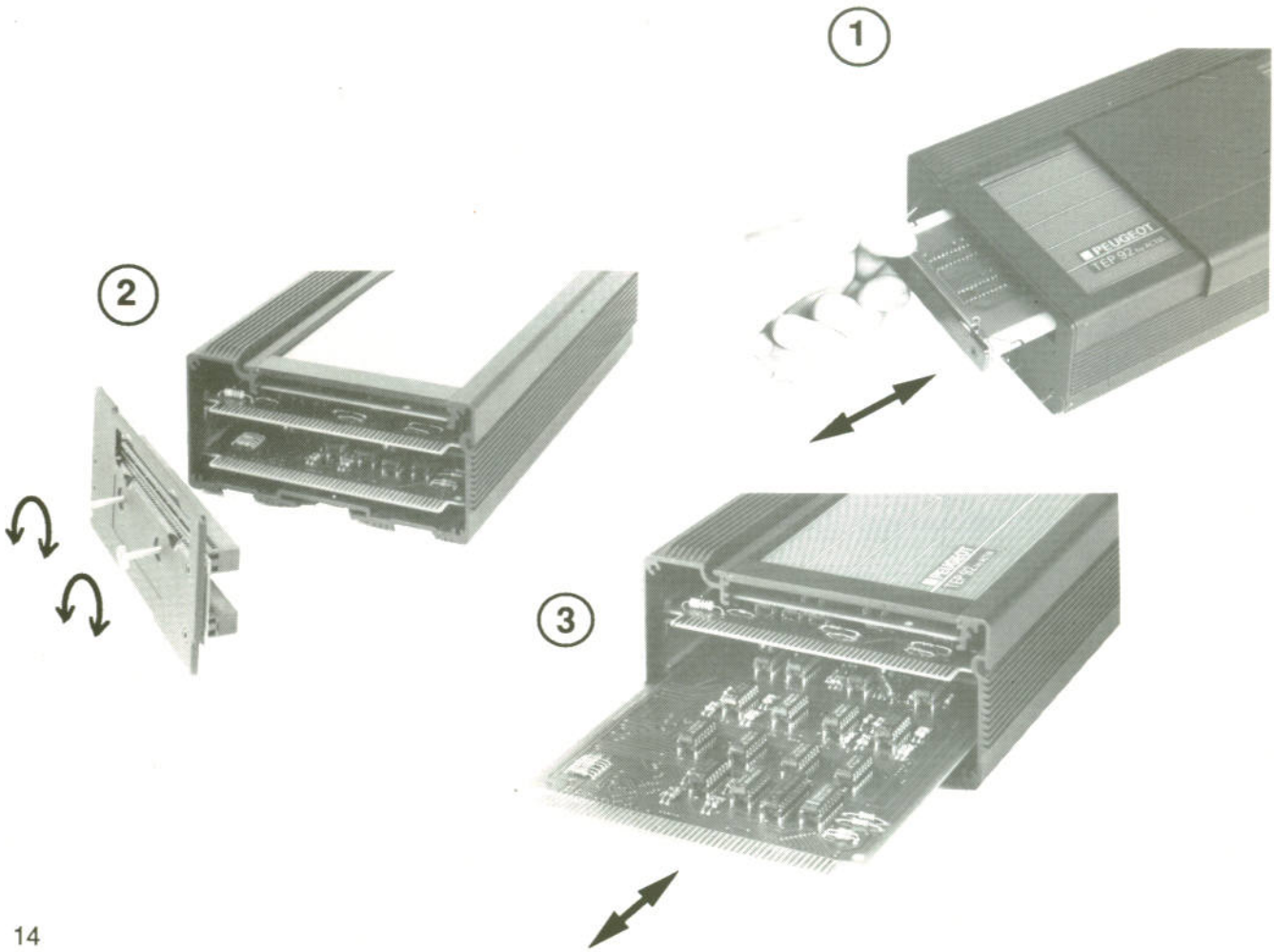
Measurement of parameters :

This is done with the engine running.
It enables checking or correction of the various engine settings. The injection time, it also displays the engine parameters. In this way the number of injections per rev, the cut-off or permanent injection, the ignition advance at precise speeds, the temperatures of coolant and air, the air flow, etc. are checked.
Press the  button to read the complete list of all the parameters.

Autodiagnosis :

This reading is taken with ignition on but engine not running.
On vehicles fitted with a coded flash diagnostic system, this displays automatically the fault(s) recorded by the control unit.
For some types of control unit, it is possible to erase these faults before performing a new test.


PEUGEOT
TEP 92 by ACTIA


1
2
3

Your tester can be updated for future modifications to vehicles in the range. One or two cassettes will be offered to replace those in your tester.

- A characteristics cassette which contains all the data necessary for the tests. Each new cassette supersedes the previous one.

(1) **Extract** the old cassette from your tester.

(2) **Insert** the new cassette in its place.

- An "INTERFACE" cassette which adapts all the electrical signals between the vehicle and your tester. It will be replaced only if electronic systems with different types of signal appear.

(1) **Extract** the characteristics cassette from your tester.

(2) **Remove** the rear cover by unscrewing the 2 visible screws.

(3) **Extract** the old "INTERFACE" cassette from your tester.

(4) Reverse the operations using the new "INTERFACE" cassette.

PRECAUTIONS IN USE

When using your tester, you are recommended to observe particularly the following precautions :

- Keep the equipment well away from sources of HT and heat
- Avoid moving mechanical parts (pulleys, etc...)
- Avoid liquid spray on the unit and the cables (water, hydrocarbons, etc...).
- Take care to locate cables in the engine compartment to avoid burning.
- On road test, the unit should be placed on the passenger's side in the passenger compartment.

OPERATING FAULTS

If, on switching on your tester, there is no screen display :

- Check that the supply lead clips are correctly connected to the battery.
- Check that the connection adaptor AC92 is connected and is the correct one for the type of system to be tested (correct reference).
- Check the fuse in the supply lead (5A fuse).

WARRANTY

Your tester carries a 1 year parts and labour guarantee.

On receiving your unit, you are requested to return straight away the detachable part of the warranty card. In return, you will be sent the user manual and the characteristics cassette necessary for the operation of your unit.

SETS OF LEADS

DESCRIPTION	No.	TYPE	REFERENCE	SUPPLIER
Battery extension lead	01	PB.P.08	P101064.300	ACTIA
Cigar lighter type lead	02	CI.P.02	P101064.700	ACTIA
Battery clip (red)	03	CP.P.02	P101064.900	ACTIA
(black).....			P101064.901	ACTIA
Ignition extension lead	04	PA.P.28	P101064.400	ACTIA
Ignition by-pass 7-way	05	DA.P.07	P101064.500	ACTIA
3-way	.....	DA.P.03	P101064.200	ACTIA
High Tension clamp	06	HT.P.04	P101064.800	ACTIA
Extension lead.....	07	PI.P.63	.....	PEUGEOT
Control unit by-pass	08			
- 15 pin type (yellow)	.....	DI.P.15	.....	PEUGEOT
- 25 pin type (red)	.....	DI.P.25	.....	PEUGEOT
- 35 pin type (green)	.....	DI.P.35	.....	PEUGEOT
- 55 pin type (blue)	.....	DI.P.55	.....	PEUGEOT
- 2 x 15 pin type (black & blue)		DI.P.15-2	.....	PEUGEOT
-		.....		
-.....		.....		
-.....		.....		
Connection adaptor	AC 92			
BOSCH Jetronic LE2 or LU2.....	.....	P.25.LE/U.2	P101064.600	ACTIA
BOSCH Jetronic LE3.1.....	.....	P.15.LE3.1.....	P101064.601	ACTIA
BOSCH Motronic ML4.1.....	.....	P.35.ML4.1...	P101064.602	ACTIA
BENDIX Fenix 3B.....	.....	P.35.FENIX3B	P101064.603	ACTIA
BENDIX Fenix 4	.....	P.55.FENIX4	P101064.604	ACTIA
SOLEX Fenix 1B.....	.....	P.35 FENIX 1B	P101064.605	ACTIA
BOSCH MP 3.1.....	.....	P.35.MP3.1	P101064.606	ACTIA
MAGNETI MARELLI MMBAG5.....		P.35.G5.M	P101064.607	ACTIA
BOSCH M.1.3.....	.....	P.55.M1.3	P101064.608	ACTIA
BOSCH Mono Jetronic.....	.....	P.25.A2.2	P101064.609	ACTIA

User manual		GB	P101340.002	ACTIA
Applications			P101412.002	ACTIA

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